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OUR INSECT FRIENDS AND ENEMIES, THE RELATION OF INSECTS TO MAN, TO OTHER ANIMALS, TO ONE ANOTHER, AND TO PLANTS, WITH A CHAPTER ON THE WAR AGAINST INSECTS. By John B. Smith, Sc. D. J. B. Lippincott Company, Philadelphia and London.—This is an excellent work by a well known authority and will be of great value to those persons who wish to have a guide to all the varied interests attached to insect life. A good idea of the scope of the work may be obtained from the contents as follows:—

Insects in their relation to the animal kingdom; Insects in their relation to plants as benefactors; In their relation to each other; In their relation to the animals that feed on them; In their relation to weather and diseases that affect them; In their relation to other animals; In their relation to man as benefactors; In their relation to man as carriers of disease; Insects in their relation to the household; In their relation to the farmer and fruit-grower; The war on insects.

There is one plate in color and 121 text figures. We heartily recommend this book as one that will surely create an interest in those who read it, for this fascinating study.

## Doings of Societies.

The Entomological Society of Western Pennsylvania held its regular monthly meeting in Carnegie Museum, Pittsburg, Pa., Monday evening, May 3, 1909, President W. J. Holland presiding. Eleven members present. Director Holland exhibited a collection of Cossidae and Hepialidae from Australia, most all very rare species, some of which have just recently been described.

Mr. Robert Dickson exhibited a very interesting collection of blown larvae of the wood-boring moths, all mounted in their natural food burrows. Among these were *Prionoxystus robiniae*, in locust, *Sanninoidea exitiosa*, in peach, *Sesia acerni* in swamp maple, *Sesia pyri*, in apple, and *Sesia pictipes*, in wild cherry, also larvae of the clothes moth *Tineola bisselliella* mounted in a piece of cloth.

Mr. Henry Engel exhibited a lot of *Arctia virgo* larvae, which he has been feeding on lettuce on and off since last August. Mr. Engel also stated that he had observed a larvae similar to *Gortyna* feeding in *Rumex obtusifolius*. No one present knew what it was.

F. W. FRIDAY, Secretary.

The Entomological Society, of Western Pennsylvania, held its regular monthly meeting in Carnegie Museum, Pittsburg, Pa., Monday evening, June 7, 1909, President W. J. Holland presiding. Ten members present. A motion was passed to accept the membership as a whole of the Allegheny Naturalist Club. A committee, consisting of Messrs. Engel, Friday and Overbeck, were appointed to select a desirable locality for the Society to hold its annual field day.

Mr. Engel stated that the larvae feeding in *Rume.r obtusifolius* turned out to be *Hadena passer*. The first moth emerging June 1st.

Mr. Robert Dickson exhibited some of his fine work in blown larvae and perfect imago of *Exartoma ferriferanum* Walk., bred in stems of *Hydrangae americana*, Olethreutes albiciliana Fernald., bred in stems of water weed (*Impassians* bicolara), also larvae and cocoon of Melittia macmurtrei Guer. bred in oak. The members then adjourned to Hotel Schenly, under escort of Director W. J. Holland, where the sociability of the Society was further continued.

F. W. FRIDAY, Secretary.

At a regular meeting of the Feldman Collecting Social, held April 21st, 1909, at 1523 S. 13th Street, Philadelphia, fifteen members were present. President Harbeck in the chair.

Mr. Daecke said collecting is very good so far in the vicinity of Harrisburg. *Cychrus viduus* Dej. and *stenostomus* Web. have been taken and the spring form of *Papilio ajax* Linn. was common April 18th and was also taken on the 11th. Another species seen was *Anthocharis genutia Fabr*. He also spoke on collecting of Coleoptera by Mr. Champlain at night with lantern which led to discussion on merits of certain lamps. Upon Mr. Daecke mentioning the rare *Clerus* caught in this manner Mr. Wenzel said they were undoubtedly on the trees after species of Scolytidae and if the trees were not infested with this group this year the *Clerus* will most likely have disappeared. July, '09]

Mr. Viereck said he could corroborate Mr. Daecke's statement on this interesting locality and reported the capture of a bee there, *Bombus ternarius* Say, which record was the southern limit of this species and of a wasp, *Pepsis elegans* St. Farg., which was the farthest north this species has been found. He said Harrisburg seems to be a conjunction of the Alleghenian and Carolinian zones and has evidences of the overlapping of the Canadian and the Austroriparian with the former two.

Mr. Wenzel commented on Fall's recent paper on American *Diplotaxis* which includes 95 species of which 50 occur in New Mexico and Arizona, only 3 in Ontario, 5 in all the New England States and 9 from Pennsylvania and New Jersey. Upon inquiry as to whether this group was determined in the same manner as the *Lachnosterna* Mr. Wenzel read from the paper, "The male genitalia are quite simple so far as examined while in the female they are entirely membranous and therefore useless for comparison."

Mr. C. T. Greene exhibited two flies one of which, *Phornia* regina Meigen, had been attacked by a fungus which made a complete line around the abdomen at the joints of the segments giving this blue fly the appearance of having yellow bands or stripes and the other, *Pollemia rudis* Fab., a freak in which the second abdominal segment does not extend the full width.

Mr. Harbeck said he had taken about 140 specimens of *Andrena*, about 6 species, on willow blossoms in a short time at Glenside, April 17th and could have taken a thousand if he had so desired. Adjourned to the annex.

GEO. M. GREENE, Secretary.

At a regular meeting of the Feldman Collecting Social, held May 19th, 1909, at 1523 S. 13th Street, Philadelphia, twelve members were present. President Harbeck in the chair.

Mr. C. T. Greene exhibited the following Diptera: Aeshnasoma rivertonensis Johnson, & and Q, collected at Riverton July 12, 1908, a species described from the & only; Baccha cognata Loew, Roxborough, May 8, 1909, and Brachyopa vacua O. S. Roxborough, May 8, 1909, the second Pennsylvania record, the first being Collingdale, May 7, 1897.

Mr. Daecke reported that Mr. Champlain and himself had bred from a dead hickory limb, from Lemoyne, Pa. (opposite Harrisburg), a species of Dipterous parasite and the following Coleoptera: *Neoclytus erythrocephalus* Fabr., *Scolytus muticus* Say, *Liopus variegatus* Hald., *Phyllobaenus dislocatus* Say, and *Agrilus egenus* Gory.

Mr. Harbeck recorded *Brachypalpus rileyi* Will. at Clementon, N. J., May 2, 1909.

Mr. Geo. M. Greene recorded a species of Diptera, *Tachy-dromia fenestrata* Say and a beetle, *Melasis pectinicornis* Welsh, collected on a dead tree at Clementon, N. J., May 2, 1909, and a specimen of *Stenosphenus notatus* Oliv., collected at Castle Rock, Pa., May 9, 1909, by C. W. Fenninger.

Mr. Wenzel exhibited a lamp with various improvements for collecting Coleoptera at night.

GEO. M. GREENE, Secretary.

The 29th regular quarterly meeting of the Pacific Coast Entomological Society was held on the evening of August 22nd, 1908, at the Café Bismarck, President Van Dyke in the chair. Twelve members and six guests were present. Mr. Walter Topp and W. H. Lange were elected to membership. The annual election of officers resulted in the same officers being re-elected.

Mr. Chas. Fuchs reported his trip east and made remarks upon *Thelydrias contractus* Motsch. (*Ignotus aenigmaticus*). with exhibition of specimens in the three stages of development.

Mr. J. C. Huguenin reported his summer's outing, and exhibited a box of Lepidoptera and one of Coleoptera; among the latter were a pair of *Purpuricenus dimidiatus* Lec., with red elytra, the tips of which were black, they were beaten from *Eriodyction glutinosum*. Mr. Edw. Ehrhorn reported the results of a collecting trip to the Yosemite Valley, and exhibited a specimen of *Carabus victinghovii*, taken in June at Rampart, Alaska.

J. C. Bradley entertained the members with an interesting account of his summer's work.

G. R. Pilate made remarks on collecting in the hills about Mills Seminary, Alameda Co., Calif., and exhibited several boxes of Lepidoptera.

F. X. Williams reported a trip to Carmel, Monterey Co., Calif. He exhibited specimens of *Sesia polygoni* that were raised from the stems of *Polygonum paronycha; Cydia cupressana*, very injurious to young cypress; *Euchaetias oregonensis* from Shasta Co., Calif., and a species of *Merolonche*.

Mr. Ehrhorn urged the members of the Society to assist in adopting uniform names for insects and that a committee of five be appointed to take up the work, that the President be one of the committee. It was made a motion and carried.

President Van Dyke then appointed the following four members: Prof. Vernon Kellogg, Prof. C. W. Woodworth, Edw. Ehrhorn and J. E. Cottle.

Mr. Ehrhorn drew attention to the Argentine ant, stating that it had been found in Oakland and San Francisco and were very destructive. The species was determined by Pergande. Percy Baumberger exhibited specimens.

A communication from L. E. Ricksecker was read, in which was given a list of the Lepidoptera taken about San Diego.

Miss Julia Wright exhibited a box of Lepidoptera from Ceylon. Adjournment.

F. E. BLAISDELL, SR., Secretary.

The 30th regular meeting of the Pacific Coast Ent. Society was held on the evening of November 21st, 1908, at the Hotel Manx.

President Van Dyke in the chair. Thirteen members were present and three guests.

Mr. J. E. Cottle reported his collecting trip to San Diego and exhibited a large series of *Hemileuca electra* taken at that place. He observed that the males fly early and the females about 2 o'clock, to deposit their eggs upon the wild buckwheat (*Eriogonum*).

Edw. Ehrhorn gave a talk on Horticultural Quarantine against insect pests. He mentioned that the live oak pest, *Phryganidia californica*, was extending its ravages to the Acacia trees, and it was constantly spreading. Some consider it introduced, others consider it native.

Dr. Van Dyke stated that the spread is probably due to the small birds being killed or driven off by boys. In the Golden Gate Park the birds are protected and the parasites few; just beyond the park limits the trees are denuded.

Dr. Blaisdell stated that he had taken the pest 30 years ago at Poway, San Diego Co., Calif. It was not common on the live oak.

Dr. Carroll Fox gave a very instructive talk on the campaign against fleas in San Francisco. He advised members when collecting to keep the specimens from the different animals separate and with the proper data, and to preserve them in 70 per cent. alcohol. Dr. Fox is depositing a series of named specimens in the California Academy of Sciences.

Other members made exhibits. Adjournment.

F. E. BLAISDELL, SR., Secretary.

The 31st regular quarterly meeting of the Pacific Coast Ent. Society was held on the evening of February 27th, 1909, at Thompson's Café, San Francisco.

Dr. Van Dyke in the chair. Fourteen members and six guests were present.

Dr. Carroll Fox, L. R. Reynolds and Maurice B. Mitzmain were elected to membership.

Mr. F. W. Nunenmacher read an epitome of the progress of the study of the Coccinelidae. Stating as a grand total that 2,028 species, 192 genera and 85 varieties were known, and that it took a hundred and twenty-nine authors to describe them.

Mr. J. G. Grundel repored a recent trip to the Tahiti Islands. He took a few Coleoptera and Lepidoptera. Among the Coccinelidae brought back were a number of specimens of *Coccinella abdominalis*. He reported a small ant as very destructive to other insects; while 550 species of native plants constituted the native flora, there are now over 2,000 species; the cocoanut weevil is very injurious there, scales (*Coccidac*) very abundant on plants around the settlements, especially on the imported plants. In the dense forests very little was found, an occasional moth or *Satyrus?* 

Mr. L. R. Reynolds stated that exhaustive collecting was a good idea as the native fauna of most islands was rapidly being destroyed or obscured by the introduction of other species.

Dr. Carroll Fox stated that species of Sarcopsyllidae were parasitic on the fleas. That he found six of these mite-like organisms upon one flea; they are so microscopic that 20 or 30 could easily get on a single individual.

Dr. Van Dyke stated that the early stages were found in rats' nests, that they run over the ground in the larva stage and finally get on their hosts.

Dr. F. E. Blaisdell reported that his monograph on the Eleodiini of the United States would soon be issued as Bulletin No. 63 of the U. S. National Museum. It is a work of 519 pages, 13 plates and 8 text figures, and had been eight years in preparation. Many exhibits were examined and discussed.

F. E. BLAISDELL, SR., Secretary.

A meeting of the Rhode Island Entomological Society was held in the offices of the Providence Forestry Company Monday, February 22nd, at 8 o'clock, nine members being present. After the minutes had been read and approved, a check-list of the Lepidoptera of Rhode Island was started and earliest and latest data taken. It was voted that the list be kept in card catalogue form and a catalogue cabinet was ordered. Mr. Eddy exhibited some Coleoptera.

Mr. Pears a 9 Junonia coenia taken at Riverside, R. I., and Mr. Place some specimens of *Psycomorpha cpimenis* which he had just bred, the moths coming out in February.

After a general discussion the meeting adjourned.

WILLIAM PLACE, JR., Secretary.

A meeting of the R. I. Entomological Society was held in the office of the Providence Forestry Company on Monday, March 8th, at 8 P. M., 11 members and one visitors being present.

After the minutes had been read and approved two new members were admitted to the society; Mr. Joseph Bridgham and Mr. H. A. Cash.

Mr. Reynolds then exhibited the nest of a trap door spider and Mr. Kingsford exhibited a petrified snail.

After a slight review of the card catalogue and a social talk, the meeting adjourned.

WILLIAM PLACE, JR., Secretary.

A meeting of the R. I. Entomological Society was held in the offices of the Providence Forestry Co., March 22, at 8 P. M., ten members being present. After the minutes had been read and approved Mr. Bridgham exhibited some rare lepidoptera including *Palilio homerus*. Particular mention might be made of the *promethia* which he exhibited. Three of the wings although streaked and mottled in an unusual manner, were distinctly  $\mathcal{Q}$  while the fourth was distinctly  $\mathcal{J}$ .

Mr. Billson then exhibited some native Lepidoptera, which were viewed with much interest.

Mr. H. Anderson was then admitted to membership.

It was requested that all members bring a list of Splingidae and Bombycidae for the card catalogue at the next meeting.

After a brief talk the meeting adjourned.

WILLIAM PLACE, JR., Secretary.